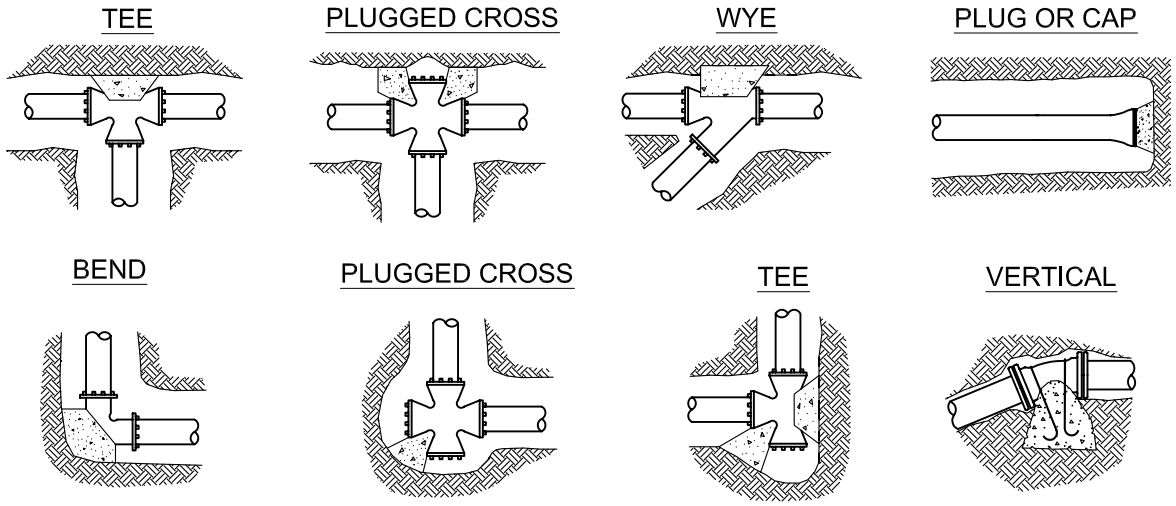

CONCRETE THRUST BLOCK SCHEDULE

(BEARING AREA OF THRUST BLOCKS IN SQUARE FEET)

FITTING SIZE (INCHES)	TEE, WYE, PLUG OR CAP	90° BEND OR PLUGGED CROSS	TEE PLUGGED ON RUN BEND		45° BEND	22 1/2° BEND	11 1/4° BEND	VERTICAL VOLUME OF THRUST BLOCK IN CUBIC YARDS			
			A1	A2				FITTING SIZE	45° BEND	22 1/2° BEND	11 1/4° BEND
04	1.3	1.9	2.5	1.9	1.3	-	-				
06	2.8	4.0	5.7	4.0	2.1	1.3	-	4"	1.1	0.4	0.2
08	5.1	7.1	10.1	7.1	3.9	2.0	1.3	6"	2.7	1.0	0.4
10	7.9	11.2	15.7	11.2	6.1	3.2	1.6	8"	4.0	1.5	0.6
12	11.3	16.0	22.7	16.0	8.8	4.5	2.3	12"	8.5	3.2	1.3
14	15.3	21.7	30.7	21.7	11.9	6.1	3.1	16"	14.8	5.6	2.3
16	20.0	28.4	40.0	28.4	15.5	8.0	4.0	VERTICAL BEND			
18	25.3	36.0	50.7	36.0	19.5	10.1	5.1	FITTING SIZE	ROD SIZE	EMBEDMENT BEND	
20	31.3	44.4	62.7	44.4	24.1	12.5	6.3	4" - 12"	#6	30	
24	45.3	64.0	90.7	64.0	34.9	18.1	9.1	14" - 16"	#8	36	

Above bearing areas based on test pressure of 150 psi and an allowable soil bearing strength of 1,500 pounds per square foot. To compute bearing areas for different test pressures and soil bearing stresses, use the following equation:

BEARING AREA = (TEST PRESSURE / 150) x (1,500 / SOIL BEARING STRESS) x (TABLE VALUE)

NOTES:

1. Concrete thrust blocking to be poured against undisturbed earth.
2. Keep concrete clear of joint and accessories. Install 12 mil total thickness polyethylene sheet around fitting. Secure sheet ends to prevent infiltration of dirt between sheet and pipe fitting prior to pouring thrust blocking. Protect mechanical joint followers and bolts from concrete with temporary forms and 12 mil polyethylene sheeting.
3. The required thrust bearing areas for special connections are shown.
4. If not shown on plans, required bearing areas at fitting shall be as indicated above, adjust if necessary, to conform to the test pressure(s) and allowable soil bearing stress(es) stated in the *Special Specifications*.
5. Bearing areas and special blocking details shown on plans take precedence over bearing areas and blocking details shown on this *Standard Dwg*. Bearing area of thrust blocks is in square feet.
6. Vertical changes in direction require specific designs for thrust blocks.

City Of Beaverton

ENGINEERING DEPARTMENT		THRUST BLOCKING STANDARDS	
UTILITIES ENGINEER David A. Winship, P.E.	DATE 6 - 10 - 04	DRAWN BY CDH - WD	DRAWING NO. 610